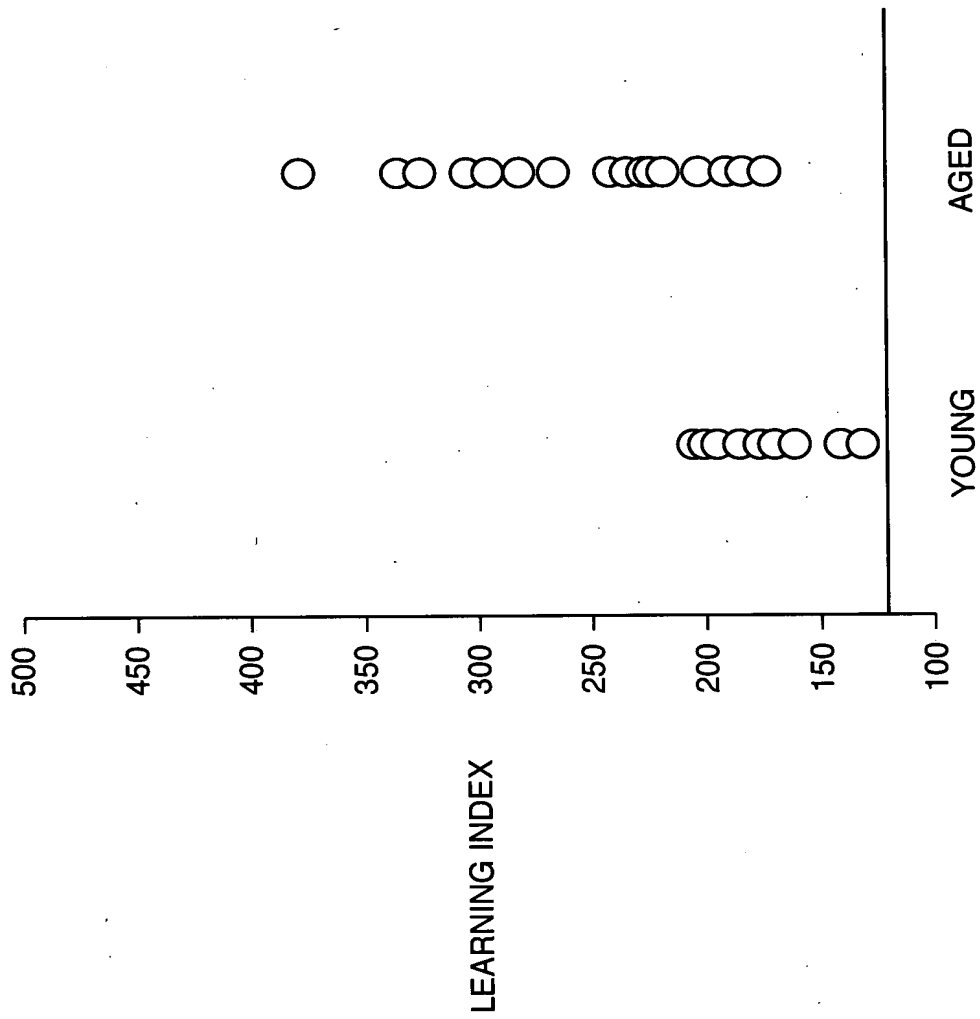




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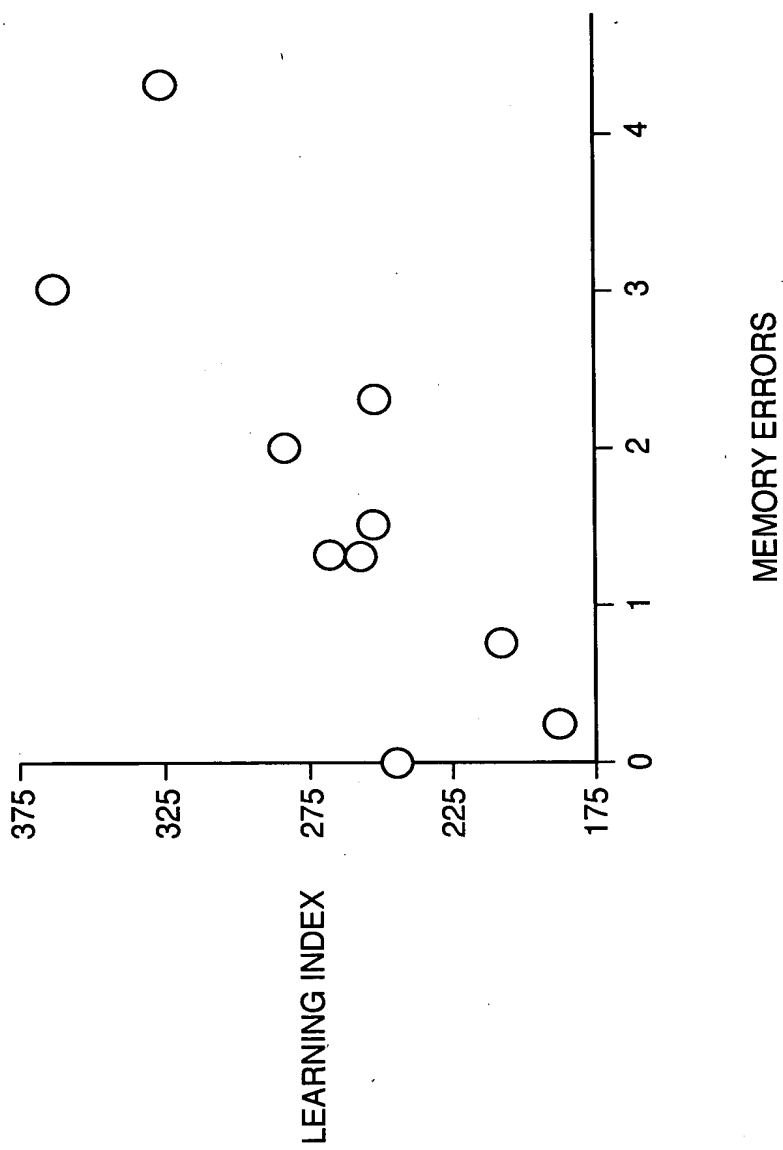


FIG. 2

## DISTRIBUTION OF MAMMALIAN GLUTAMATE TRANSPORTERS AND THEIR HUMAN HOMOLOGUES\*

GLUTAMATE TRANSPORTER	HUMAN HOMOLOGUE	NCBI LOCUSLINK	CELL TYPE	DISTRIBUTION
GLAST	EAAT1	SLC1A3	ASTROCYTES	HIGH EXPRESSION IN CEREBELLUM; LESS IN BRAIN AND SPINAL CORD
GLT-1	EAAT2	SLC1A2	ASTROCYTES (NEURONS)**	WIDESPREAD THROUGHOUT BRAIN AND SPINAL CORD
EAAC1	EAAT3	SLC1A1	NEURONS	HIPPOCAMPUS, CEREBELLUM, BASAL GANGLIA
EAAT4	EAAT4	SLC1A6	NEURONS	PURKINJE CELLS OF CEREBELLUM
EAAT5	EAAT5	SLC1A7	NEURONS	RETINA

\*GLAST INDICATES ASTROCYTE-SPECIFIC GLUTAMATE TRANSPORTER; EAAT1, EXCITATORY AMINO ACID TRANSPORTER 1; GLT-1 GLUTAMATE TRANSPORTER 1; EAAT2, EXCITATORY AMINO ACID TRANSPORTER 2; EAAT3, EXCITATORY AMINO ACID TRANSPORTER 3; EAAT4, EXCITATORY AMINO ACID TRANSPORTER 4; EAAT5, EXCITATORY AMINO ACID TRANSPORTER 5.

\*\*NOTE THAT ONE SPICE VARIANT GLT-1 $\alpha$  IS EXPRESSED PREFERENTIALLY IN ASTROCYTES AND ANOTHER GLT-1 $\beta$  IS EXPRESSED PREFERENTIALLY IN NEURONS (SCHMITT 2002 NEUROSCIENCE 109 45-61).

FIG. 3

## GLUTAMATE REGULATION: MICROARRAYS

GENE	AU	Y + AI	EFFECT SIZE	p VALUE
U15098.at GLTI	337.63* $\pm$ 8.2	257.62 $\pm$ 7.9	5.87	0.0007
S59158.at GLAST	4693.87 <sup>†</sup> $\pm$ 165.58	4228.57 $\pm$ 135.6	1.93	0.076
AF038571 EAAC1	732.4 $\pm$ 35.73	655.58 $\pm$ 23.92	NS	0.112
rc_A1227705_at PACAP	604.63* $\pm$ 18.91	482.32 $\pm$ 21.25	3.53	0.007
J04171_at ASPARTATE AMINOTRANSFERASE	3287.73* $\pm$ 14.86	3055.23 $\pm$ 55.9	2.58	0.025

\*NO OVERLAP BETWEEN PROBE SET VALUES FOR AU AND ALL PROBE SET VALUES FOR Y AND AI.

<sup>†</sup>NO OVERLAP BETWEEN VALUES FOR AU AND VALUES FOR AI.

FIG. 4

GLUTAMATE REGULATION: IN SITU HYBRIDIZATION ASSAYS

GENE	AU	Y + AI	p VALUE
GLT	2.46 ± .095	2.21 ± .04	p < .03
GLAST	.263 ± .016	.228 ± .009	p < .10
EAAC1	.368 ± .034	.304 ± .028	NS

FIG. 5

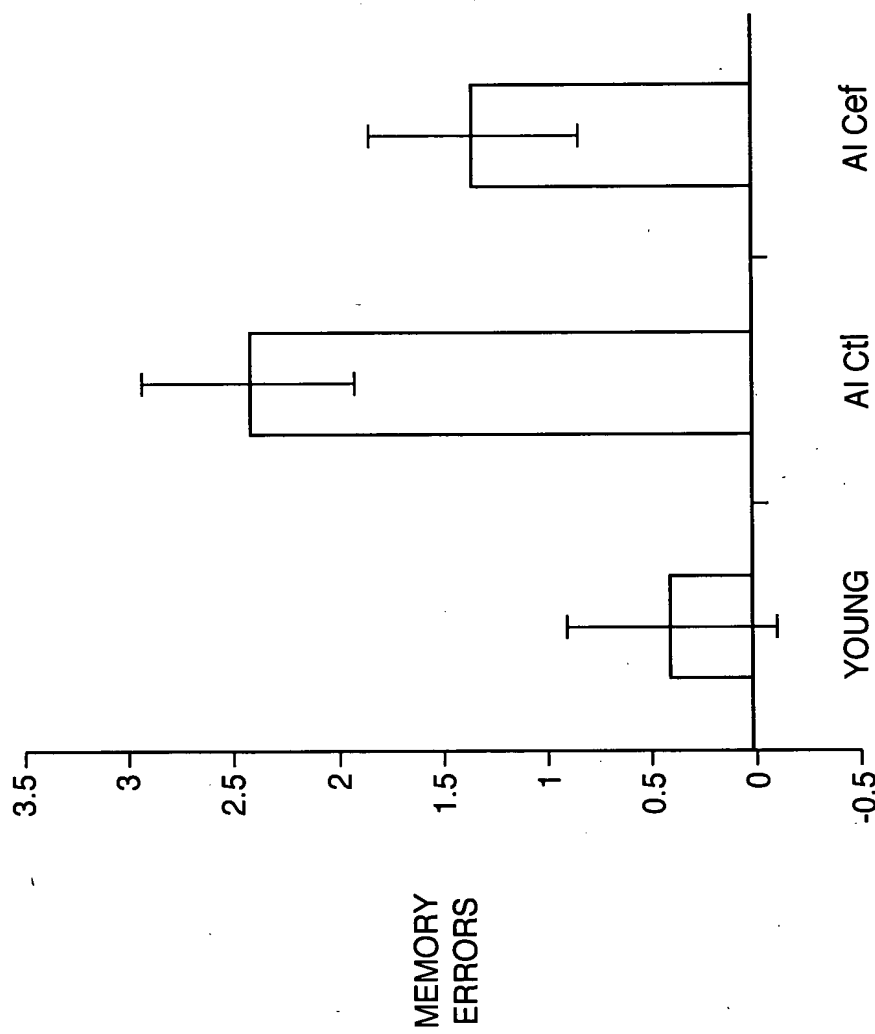


FIG. 6